

**Amendments to the Specification:**

**Please amend paragraph (0012) as follows:**

(0012) The vibrator 1 is made of a piezoelectric single crystal, for example, as described later. The vibrator 1 acts as a frequency filter so that a signal substantially containing a vibration of a natural resonance frequency is output as an arrow "D". The signal "D" is input into the amplifier 3. The operations are repeated in the oscillation loop to improve the ratio of the signal having a natural resonance frequency, so that the amplitude of the input signal to the amplifier 3 is increased. The gain of the amplifier 3 is adjusted so that the loop gain (gain when the signal is circulated once in the oscillation loop) is adjusted ~~at~~to be 1. Finally, the loop gain reached 1 without adjusting the gain of the amplifier. At this point, the oscillation of the vibrator is stabilized.

**Please amend paragraph (0013) as follows:**

(0013) The stable oscillation of the vibrator is indispensable for measurement of a physical value due to the following reasons. If the amplitude of the driving signal for oscillating the vibrator is not constant, the amplitude of the detection signal output by the vibrator is ~~not also~~ not constant to prevent preventing the accurate measurement of the physical value.

**Please amend paragraph (0014) as follows:**

(0014) According to one embodiment, the amplifier 3 is serially connected with a resistor 4 and a CR oscillation circuit 5A. The characteristics of the CR oscillation circuit 5A is described referring to Figs. 2(a) and 2(b). The CR oscillation circuit 5A has a condenser 8, an alternating current amplifier 7 and a resistor 6. It is now provided that the rectangular wave has an input wave form ~~bread~~ as shown in "B" in Fig. 2(b) at a position "B" in the CR oscillation circuit 5A. The output wave ~~from form~~ is sharpened as shown in "A" of Fig. 2(b) and its amplitude is increased at a position "A".

**Please amend paragraph (0015) as follows:**

(0015) Such self-oscillation circuit using a CR oscillation circuit is suitable for rapidly activating a vibrator due to the following reasons. As shown in Fig. 3(a), it is provided that the vibrator 1 is excited using the self-oscillation circuit. When the signal wave has a wave form of ~~sine~~ sine wave, the signal level at the point "a" is gradually increased over time as

described above and then stabilized (loop gain reaches 1). When a sine wave is input, the amplifier 3 exhibits linear amplification characteristic.